WHAT IS CLAIMED IS:

1. An image reading apparatus comprising:

a storage unit which stores reference image data generated based on image data for reference color patches;

a display unit which reproduces two images based on processed image data and the reference image data stored in the storage unit, and displays the images so as to be contrasted with each other; and

an instruction unit which issues an instruction to execute calibration of conversion characteristics in the processing for color conversion based on the images displayed on the display unit.

2. The apparatus according to claim 1, further comprising an averaging unit which averages the read image data for the reference color patches, on a time varying basis,

wherein the image data averaged by the averaging unit is used as the read image data for the reference color patches that is displayed on the display unit as one of the images to be contrasted.

3. The apparatus according to claim 2, further comprising a storage unit which stores the image data averaged by the averaging unit,

wherein the averaging unit averages a currently read

image data and the image data fetched from the storage unit.

4. The apparatus according to claim 1, wherein the color conversion is processing for converting an RGB space that is specific to the color image sensor, to a standard color space, and

the reference image data stored in the storage unit is data for the standard color space.

5. The apparatus according to claim 1, wherein the reference image data is data based on colorimetric values of the reference color patches.

6. The apparatus according to claim 5, wherein the reference image data is based on data obtained by adding a predetermined variation to the colorimetric values of the reference color patches.

7. The apparatus according to claim 1, wherein the reference image data is based on data obtained by reading the reference color patches in an initial state at the time of manufacture of the image reading apparatus by the color image sensor to obtain image data for the reference color patches, and by performing color conversion on the image data.

8. An image processing apparatus provided with an image reading apparatus comprising:

a light source which emits light, to which an image is exposed;

a color image sensor which reads the image as a target to be read exposed to the light to obtain image signals, and outputs the image signals;

a color converter which subjects the image signals to color conversion to obtain digital color image data and outputs the digital color image data;

a storage unit which stores reference image data generated based on reference color patches;

a display unit which reproduces two images based on data obtained by reading the reference color patches by the color image sensor to obtain image data for the reference color patches and subjecting the image data to processing, and on the reference image data stored in the storage unit, and which displays the images so as to be contrasted with each other; and

an instruction unit which issues an instruction to execute calibration of conversion characteristics in the processing for color conversion based on the images displayed on the display unit.

9. An image reading method comprising the steps of:

emitting light by a light source and exposing an image to the light;

reading the image as a target to be read exposed to the light by a color image sensor to obtain image signals and outputting the image signals;

color-converting the image signals to digital color image data and outputting the digital color image data;

storing reference image data generated based on reference color patches;

reproducing two images based on data obtained by reading the reference color patches in an initial state at the time of manufacture of an image reading apparatus by the color image sensor in the reading step to obtain image data for the reference color patches and by converting the image data in the color converting step and on the reference image data stored in the storing step, and displaying the images so as to be contrasted with each other; and

issuing an instruction to execute calibration of conversion characteristics in the color converting step based on the images displayed in the displaying step.

10. The method according to claim 9, further comprising an averaging step of averaging the image data obtained by reading the reference color patches in the reading step,

on a time varying basis,

wherein the image data averaged in the averaging step is used as the read image data for the reference color patches that is displayed in the display step as one of the images to be contrasted.

11. The method according to claim 10, further comprising a storing step of storing the image data averaged in the averaging step,

wherein in the averaging step, a currently read image and the image stored in the storing step are averaged.

12. The method according to claim 9, wherein the color converting step is a step of converting an RGB space that is specific to the color image sensor, to a standard color space, and

the reference image data stored in the storing step is data for the standard color space.

13. The method according to claim 9, wherein the reference image data is data based on colorimetric values of the reference color patches.

14. The method according to claim 13, wherein the reference image data is based on data obtained by adding a predetermined variation to the colorimetric values of the reference color patches.

15. The method according to claim 9, wherein the reference image data is based on data obtained by reading the reference color patches in the initial state at the time of manufacture of the image reading apparatus by the color image sensor in the reading step to obtain image data for the reference color patches, and by converting the image data in the color converting step.

16. A computer program which makes a computer execute the steps of:

reading reference color patches by a color image sensor to obtain image data for the reference color patches;

performing processing on the image data for the reference color patches, and outputting the processed image data;

storing reference image data generated based on the processed image data for the reference color patches;

reproducing two images based on the processed image data and the reference image data stored in the storage step, and displaying the images so as to be contrasted with each other; and

issuing an instruction to execute calibration of conversion characteristics in the processing for color conversion based on the images displayed in the displaying step.

17. The program according to claim 16, further making the computer execute an averaging step of averaging the image data obtained by reading the reference color patches in the reading step, on a time varying basis,

wherein the image data averaged in the averaging step is used as the read image for the reference color patches that is displayed in the display step as one of the images to be contrasted.

18. The program according to claim 17, further making the computer execute a storing step of storing the image data averaged in the averaging step,

wherein in the averaging step, a currently read image and the image stored in the storing step are averaged.

19. The program according to claim 16, wherein the color converting step is a step of converting an RGB space that is specific to the color image sensor, to a standard color space, and

the reference image data stored in the storing step

is data for the standard color space.

20. The program according to claim 16, wherein the reference image data is data based on colorimetric values of the reference color patches.

21. The program according to claim 20, wherein the reference image data is based on data obtained by adding a predetermined variation to the colorimetric values of the reference color patches.

22. The program according to claim 16, wherein the reference image data is based on data obtained by reading the reference color patches in the initial state at the time of manufacture of the image reading apparatus by the color image sensor in the reading step to obtain image data for the reference color patches, and by converting the image data in the color converting step.